From John 1711CE 11/23/04

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Global Issue: contaminants of concern (COC) are established through an evaluation of process history, existing site characterization data and investigation of the site. An exclusion process is then used to drop individual chemicals and radionuclides from the COC list. Some exclusion rules are not controversial (e.g., exclusion of short-lived radionuclides that decay quickly to undetectable and insignificant concentrations). There is uncertainty inherent in other exclusion rules, and considerable time can be spent to reach consensus on excluded contaminants. A small analytical list is desirable to avoid calculating a significant theoretical risk for contaminants that are not detected: due to the risk assessment convention of calculating risk for non-detected contaminants at a concentration of one-half the analytical detection limit

However; a large analytical list is desirable to achieve the confidence of all parties that unknown or unlikely contaminants and their breakdown products will be found even if there are errors in the COC exclusion process or process history knowledge. Both EPA's Contract Laboratory Program and SW-846 target compound lists came from the USEPA Priority Pollutant list which was a huge effort designed to capture contaminants representative of a broad range of pollutants found across the nation that were known from industrial, agricultural, etc. usage. Also, break down products from biodegradation, etc. were added to the list. It is not completely known where and which chemicals were disposed of at the site. The uncertainty in process knowledge supports a more conservative approach.

Resolution: contaminants of concern will be identified based on process history, existing site characterization data, and new data produced by field investigation. Each sampling and analysis plan will specify method-based analysis; the reported data will include both the COCs and all other analytes in the method analysis. The risk assessment will not calculate risk for non-COCs that are non-detected. If "unexpected" chemicals are reported at concentrations greater than the analytical detection limit, they will be added as COCs. Ecology and EPA may approve the exclusion of unexpected chemicals from risk calculations on a case-by-case basis. The inclusion or exclusion of unexpected chemicals in risk assessment calculations will be reported in the RI/FS report.

